



**INFRARED THERMOMETER with Laser Guide + TYPE K thermometer, Model : TM-909L**  
**INFRARED THERMOMETER with Laser Guide Model : TM-919L**

FEATURES	
* Non-contact temperature measurement, -10 °C to 350 °C (14 °F to 662 °F), precision for none contact temperature measurement.	* Records Maximum & Minimum readings with recall.
* °C, °F display unit, select by front push button.	* Data hold.
* LCD display, easy readout.	* Auto shut off saves battery life.
* A factory preset emissivity value to 0.95, which will cover 90% of a typical application.	* Operates from 006P DC 9V battery.
* Microprocessor circuit assures maximum possible accuracy, provides special functions & features.	* Build in the type k thermometer, wide range, -50 °C to 1230 °C, precision for direct temperature measurement. (TM-909L only)
* Gun type, heavy duty & compact housing case.	* 0.1min. resolution for infrared thermometer. (TM-909L only)
* With laser guide.	* Emissivity adjustment from 0.1 0 to 0.95, (TM-909L only)

GENERAL SPECIFICATIONS			
Circuit	Custom one-chip of microprocessor LSI circuit.	Operating Temp.	0 °C to 50 °C (32 °F to 122 °F).
Display	11 mm (0.43 ") LCD, 4 digit.	Laser Guide	Red color, laser power less than 1 mW.
Sampling Time	Approx. 1 sec.	Operating Humidity	Less than 80% RH.
Memory Recall	Records Maximum & Minimum readings with recall.	Power Current	Without laser guide - Approx. DC 12 mA. With laser guide - Approx. DC 23 mA.
Special function	Data hold, % (Relative).	Power Supply	DC 9V heavy duty battery, 006P, MN1604(PP3) or equivalent.
Temp. Sensor	Thermocouple pie.	Weight	265 g/0.6 LB.
IR Emissivity Setting	0.1 to 0.95, a factory preset emissivity value to 0.95, which will cover 90% of a typical application. * TM-909L only 0.95 fix value. * TM-909L only	Dimension	195 x 120 x 58 mm. (7.7 x 4.7 x 2.3 inch).
IR Measurement Wave length	6 to 12 micro meter.	Accessories Included	Instruction manual.....1 PC.
IR Distance Factor	D/S : Approx. 7:1. D - Distance, S - Spot.	Optional type K Temp. Probe	TP-01, TP-02A, TP-03, TP-04. Optional probe for TM-909L only.
		Optional Carrying Case	Hard carrying case, CA-06.

ELECTRICAL SPECIFICATIONS					
Infrared Thermometer, TM-909L, TM-919L			Type K Thermometer, TM-909L		
Resolution/ ranges	1°C	-10 °C to 350 °C	Resolution & Range	1C	-50 °C to 1230 °C
	1°F	14 °F to 662 °F		1 °F	-50 °F to 2240 °F
	0.1°C	-10.0 °C to 110.0 °C * TM-909L only		Accuracy	°C ± (1 % + 1 °C)
	0.1°F	14.0 °F to 230.0 °F * TM-909L only		(23 ± 5 °C)	°F ± (1 % + 2 °F)
Accuracy	3 % of reading or 3°C (6 °F), which ever is greater. * Within 23.5 °C ambient operating temp. & the emissivity value is 0.95. * 300 °C * Other spec. refere operation manual.		* Spec. tested under the environment RF Field Strength less than 3 V/M & frequency less than the 30 MHz only.		
			Sensor Type	Thermocouple K(NiCr-NiAl).	
			Linearity	Memory the type k curve into the CPU	
			Correction	memory, intelligent.	

OPTIONAL CARRYING CASE & TEMPERATURE PROBE	
Carrying Case	Model : CA-06, Hard carrying case
Thermocouple Probe (Type K) TP-01	* Measure Rage : -40 °C to 250 °C, -40 °F to 482 °F. * Ultra fast response naked-bead thermocouple, general purpose application.* TM-909L only
Thermocouple Probe (Type K), TP-02A	* Measure Range : -50 °C to 900 °C, -50 °F to 1650 °F. * Dimension: 10 cm tube, 3.2 mm Dia. * For TM-909L only.
Thermocouple Probe (Type K), TP-03	* Measure Range : -50 °C to 1200 °C, -50 °F to 2200 °F. * Dimension: 10 cm tube, 8 mm Dia. * For TM-909L only.
Surface Probe (Type K), TP-04	* Measure Range : -50 °C to 400 °C, -50 °F to 752 °F. * Size : Temp. sensing head - 15 mm Dia. Probe length - 120 mm. * For TM-909L only.

\* Appearance and specifications listed in this brochure are subject to change without notice.

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